

IMPROVISED OVERHEAD STIRRER

TEXT & PHOTOS BY UEMURA



This is the Uemura design of an improvised overhead stirrer.

Take a glass rod which fits very well in a glass tube. Drill a hole in a cork stopper and mount the glass tube. You can use hot glue to fix the tube to become more stable in the cork. The glass rod can be shaped at its one end to simple U- or T-forms for stirring. Use glycerine between the rod and the tube for proper lubrication (or else the cork will heat up, or possibly get stuck).

This construction is not usable for pressure or vacuum but allows reflux if the rod and tube fit tightly.



The other end of the rod is attached to a short length of rubber vacuum tubing. Then take a kitchen mixer from your wife, cut one of the mixer shafts and mount the remaining shortened piece in the other end of the vacuum tubing. This construction vibrates, but this is actually a welcome feature since the whole system is now elastic and can't break. Uemuras one run for four hours without any problems.

The photos illustrate the device being used to stir an [Urushibara reduction](#), and due to the evolution of hydrogen, one of the three necks has been fitted with an exhaust tube to allow the hydrogen to escape at a safe distance from the electric motor, which could otherwise ignite the gas.

The above photo show the apparatus in its entirety, while the one to the right is a close-up of the stirrer shaft joint construction (*Click on the images to view them in full size*).